What is claimed is:

1. An isolated amyloid beta peptide or homologue thereof, selected according to the method comprising the steps of:

a. determining the binding value of each amino acid of a subsequence of amyloid beta peptide or homologue thereof upon binding to a HLA class 1 and/or class II molecule of interest;

b. determining the resulting score of all amino acids of the subsequence, based on the binding value of each amino acids obtained in step a; and

c. comparing said resulting score to a preselected value, wherein a subsequence with a resulting score, which is less than said preselected value is then selected as contained in the isolated amyloid beta peptide or homologue thereof.

2. The isolated amyloid beta peptide or homologue thereof of claim 1, wherein said peptide obtained in step C is further being assessed for lack of its ability to induce a T-cell response.

3. The isolated amyloid beta peptide or homologue thereof of claim 2, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T-cell proliferation.

4. The isolated amyloid beta peptide or homologue thereof of claim 2, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T- cell cytotoxicity.

5. The isolated amyloid beta peptide or homologue thereof of claim 2, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce cytokines.

6. The isolated amyloid beta peptide or homologue thereof of claim 2, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect T-cell activation markers.

7. The isolated amyloid beta peptide or homologue thereof of claim 2, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect specific T-cell receptors.

8. The isolated amyloid beta peptide or homologue thereof of claim 1, wherein said peptide for preparing a vaccine comprising amyloid beta or homologue thereof is further being assessed for lack of fibrillogenicity.

9. The isolated amyloid beta peptide or homologue thereof of claim 1, wherein said peptide for preparing a vaccine comprising amyloid beta or homologue thereof is further being assessed for lack of beta sheet structure.

10. The isolated amyloid beta peptide or homologue thereof of claim 1, wherein said peptide is further being assessed for lack of toxicity.

11. The isolated amyloid beta peptide or homologue thereof of claim 1, wherein said peptide is further being assessed for lack of cytotoxicity.

12. The isolated amyloid beta peptide or homologue thereof of claim 1, wherein said peptide is further being assessed for its ability to induce an antibody response.

13. A vacccine comprising the isolated amyloid beta peptide or homolog thereof of claim 1, whereby the amyloid beta peptide or homologue thereof lacks the ability to induce a T-cell response.

14. The vaccine of claim 13, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T-cell proliferation.

15. The vaccine of claim 13, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T- cell cytotoxicity.

16. The vaccine of claim 13, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce cytokines.

17. The vaccine of claim 13, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect T-cell activation markers.

18. The vaccine of claim 13, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect specific T-cell receptors.

19. A vaccine comprising an amyloid beta peptide or homologue thereof and a carrier or a diluent, wherein the peptide or homologue thereof are selected according to the method comprising the steps of:

a. determining the binding value of each amino acid of a subsequence of amyloid beta peptide or homologue thereof for binding to a HLA class 1 and/or class II molecule of interest;

b. determining the resulting score of all amino acids of the subsequence based on the binding value of each amino acid obtained in step a; and

c. comparing said resulting score to a preselected value, wherein a subsequence with a resulting score, which is less than said preselected value is then selected as contained in the isolated amyloid beta peptide or homologue thereof of the vaccine.

20. The vaccine of claim 19, wherein said peptide obtained in step C is further being assessed for lack of its ability to induce a T-cell response.

21. The vaccine of claim 19, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T-cell proliferation.

22. The vaccine of claim 19, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T- cell cytotoxicity.

23. The vaccine of claim 19, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce cytokines.

24. The vaccine of claim 19, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect T-cell activation markers.

25. The vaccine of claim 19, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect specific T-cell receptors.

26. The vaccine of claim 19, wherein said peptide for preparing a vaccine comprising amyloid beta or homologue thereof is further being assessed for lack of fibrillogenicity.

27. The vaccine of claim 19, wherein said peptide for preparing a vaccine comprising amyloid beta or homologue thereof is further being assessed for lack of beta sheet structure.

28. The vaccine of claim 19, wherein said peptide for preparing a vaccine comprising amyloid beta or homologous thereof is further being assessed for lack of toxicity.

29. The vaccine of claim 19, wherein said peptide for preparing a vaccine comprising amyloid beta or homologous thereof is further being assessed for lack of cytotoxicity.

30. The vaccine of claim 19, wherein said peptide for preparing a vaccine comprising amyloid beta or homologue thereof is further being assessed for its ability to induce an antibody response.

31. A vaccine comprising an amyloid beta peptide or homologue thereof, whereby the amyloid beta peptide or homologue thereof lacks the ability to induce a T-cell response.

32. The vaccine of claim 31, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T-cell proliferation.

33. The vaccine of claim 31, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T- cell cytotoxicity.

34. The vaccine of claim 31, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce cytokines.

35. The vaccine of claim 31, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect T-cell activation markers.

36. The vaccine of claim 31, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect specific T-cell receptors.

37. A method of determining T-cell epitopes within amyloid beta peptide or homologue thereof comprising the steps of:

a. determining the binding value of each amino acid of a subsequence of amyloid beta peptide or homologue thereof upon binding to a HLA class 1 and/or class II molecule of interest;

b. determining the resulting score of all amino acids of the subsequence based on the binding value of each amino acids obtained in step a; and

c. comparing said resulting score to a preselected value, to predict presence of T-cell epitopes within amyloid beta peptide or homologue thereof.

38. A method of predicting the reaction of an individual to a vaccine, which comprises amyloid beta peptide or homologue thereof, comprising the following steps:

a. obtaining a sample from a subject;

determining the HLA haplotype of said subject;

c. determining the binding value of each amino acid of a subsequence of amyloid beta peptide or homologue thereof to HLA molecules of said individual;

d. determining the resulting score of all amino acid of the subsequence based on the binding value of each amino acids obtained in step c; and;

e. comparing said resulting score to a preselected value, wherein if said resulting score is higher than said preselected score, the individual has the potential to develop T-cell responses immune response, and if said resulting score is lower than said preselected score the individual does not have the potential of developing a T-cell responses.

39. The method of claim 38, wherein said sample comprises body fluid or tissue.

40. The method of claim 38, wherein said body fluid comprises cerebral spinal fluid or blood.

41. The method of claim 38, wherein the tissue comprises skin or nose epithelium.

42. A method of matching a vaccine comprising a beta amyloid or homologue peptide thereof to an individual, for immunization of an individual wherein the based on the HLA haplotype of the individual comprising:

a. obtaining a sample from a subject;

determining the HLA haplotype of said subject;

c. determining the binding value of each amino acid of a subsequence of amyloid beta peptide or homologue thereof to HLA molecules of said individual;

d. determining the resulting score of all amino acid of the subsequence based on the binding value of each amino acids obtained in step a; and

comparing said resulting score to a preselected value, wherein if said resulting score is lower than said preselected score, the beta amyloid or homologue thereof is selected for preparing a vaccine comprising beta amyloid peptide or homologous thereof for immunization of an individual based on the haplotype of the individual and if said resulting score is higher than said preselected score, the beta amyloid or homologue thereof is not selected for immunization of the individual based on the haplotype of the individual.

43. The method of claim 42, wherein said sample comprises body fluid or tissue.

44. The method of claim 42, wherein said body fluid comprises cerebral spinal fluid or blood.

45. The method of claim 42, wherein the tissue comprises skin or nose epithelium.

46. The method of claim 42, wherein said peptide obtained in step e is further being assessed for lack of its ability to induce T-cell responses.

47. The method of claim 46, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T-cell proliferation.

48. The method of claim 46, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce T- cell cytotoxicity.

49. The method of claim 46, wherein lack of ability to induce a T-cell response is assessed as lack of ability to induce cytokines.

50. The method of claim 46, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect T-cell activation markers.

51. The method of claim 46, wherein lack of ability to induce a T-cell response is assessed as lack of ability to detect specific T-cell receptors.

52. The method of claim 42, wherein said peptide for preparing a vaccine comprising amyloid beta or homologue thereof is further being assessed for lack of fibrillogenicity.

53. The method of claim 42, wherein said peptide for preparing a vaccine comprising amyloid beta or homologue thereof is further being assessed for lack of beta sheet structure.

54. The method of claim 42, wherein said peptide for preparing a vaccine comprising amyloid beta or homologous thereof is further being assessed for lack of toxicity.

55. The method of claim 42, wherein said peptide for preparing a vaccine comprising amyloid beta or homologous thereof is further being assessed for lack of cytotoxicity.

56. The method of claim 42, wherein said peptide for preparing a vaccine comprising amyloid beta or homologoue thereof is further being assessed for its ability to induce antibody responses.

57. A kit for matching a vaccine comprising amyloid beta peptide or homologue thereof to an individual based on the HLA haplotype of the individual comprising:
a) a means for obtaining a blood sample from the individual;
b) a means for determining the HLA haplotype of the individual; and
c) a means for determination of the binding of subsequence of amyloid beta or homologous to HLA haplotype of the individual.

58. A method of preventing the formation or progression of amyloid plaques using the vaccine of claims 13.

59. A method of preventing the formation or progression of amyloid plaques using the amyloid beta peptide or homologue thereof of claim 1.